



Power Choke Coil MHIC0420 type

■ Features

High performance (Isat) realized by metal dust core.

Low profile : Thickness max. 2.0mm

Low loss realized with low DCR

Capable of corresponding high frequency (3MHz)

100% lead (Pb) free meet RoHS standard

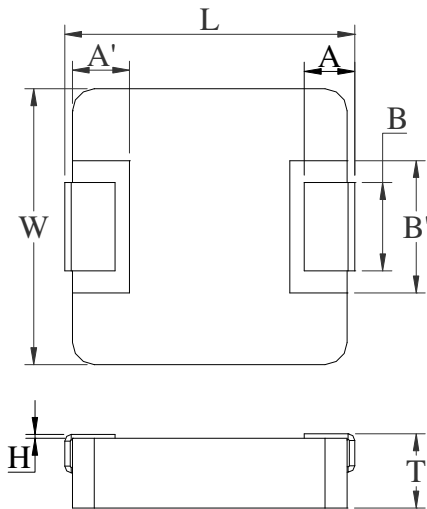
■ Application

DC/DC converter for CPU in Notebook PC

Thin type on-board power supply module for exchanger

VRM for server

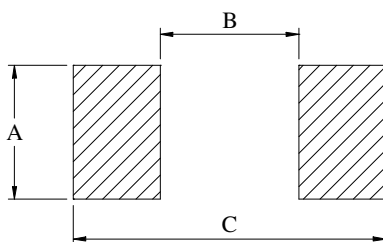
■ Outline Dimensions



Code	Dimensions (mm)
L	4.15 ± 0.35
W	4.0 ± 0.3
T	1.8 ± 0.2
A	0.8 ± 0.3
A'	1.0 ± 0.1
B	1.5 ± 0.3
B'	2.2 ± 0.2
H	0 ~ +0.15

■ Recommend Land Pattern Dimensions

The customer shall determine the land dimensions shown below after confirming and safety.



A	2.5
B	2.2
C	5.2

Unit : mm



■ Specifications

Part Number	L0 Inductance (μH) @ (0A)	R_{dc} (m Ω)		Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
		Typical	Maximum	Typical	Typical
MHIC0420-R10M	0.10	4.5	5.0	11.0	30.0
MHIC0420-R22M	0.22	7.3	8.0	9.0	17.0
MHIC0420-R47M	0.47	14.0	15.5	6.0	11.5
MHIC0420-1R0M	1.0	32.0	36.0	3.8	8.5

* : If you require another part number please contact with us.

** : Inductance Tolerance $\pm 20\%$

Note 1. : All test data is referenced to 25°C ambient.

Note 2. : Test Condition: 100KHz, 1.0Vrms

Note 3. : Idc : DC current (A) that will cause an approximate ΔT of 40°C

Note 4. : Isat : DC current (A) that will cause L0 to drop approximately 20%

Note 5. : Operating Temperature Range -55°C to + 125°C

Note 6. : The part temperature (ambient + temp rise) should not exceed 125°C under the worst case operating conditions. Circuit design , component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

Note 7. : The rated current as listed is either the saturation current or the heating current depending on which value is lower.



Current Characteristic

